

ABSTRACT

The present invention provides for a novel anti-neoplastic pharmaceutical composition. Specifically, the present invention provides for phytochemotherapeutic compositions produced from aqueous extracts (and fractions thereof), derived from *Vernonia amygdalina* leaves. These pharmaceutical compositions inhibit the growth of neoplastic cells, including human breast cancer cells. Furthermore, the instant invention provides for methods of producing the compositions and methods of using the compositions to inhibit the proliferation of neoplastic cells.